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Attorney's Docket No. 99-1870
Client's Docket No. RDE213

A

PATENT Utility APPLICATION COVER SHEET

BOX PATENT APPLICATION
HONORABLE ASSISTANT COMMISSIONER FOR PATENTS
Washington, D. C. 20231

Sir:

Transmitted herewith for filing is the utility patent application of:

INVENTOR: MARK PITELL
LINDA PITELL

FOR: VEHICLE FIRE EXTINGUISHER SYSTEM

Enclosed are:


- X Postcard for receipt stamp and return.
- X Applicant's Check for \$345.00, covering fees calculated below.
- X Specification with Claims, Abstract, & Declaration & Power of Attorney
- X A verified statement to establish small entity status under 37C.F.R § 1.9 and 37 C.F.R. § 1.27.
- X 3 sheets of drawing.
Cover Sheet & Assignment to: _____
- X Information Disclosure Statement.

The filing fee has been calculated as shown below:

FOR:	Col. 1 No. Filed	Col. 2 No. Extra	SMALL ENTITY RATE	FEE
BASIC FEE			\$345	\$345
TOTAL CLAIMS	6 -20=	0 x09	0	
INDEPENDENT CLAIMS	2 -3=	0 x39	0	
MULTIPLE DEPENDENT CLAIMS PRESENTED			+125	
TOTAL				\$345

DEPOSIT ACCOUNT AUTHORIZATION

The Commissioner is hereby authorized to charge any fees, which are not otherwise submitted and which may be required under 37 CFR 1.17 during the entire pendency of this application, to the Deposit Account # 11-0020.


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September 15, 2000

Date

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Applicant or Patentee: **MARK P. PITELL**
LINDA L. PITELL

Serial or Patent Number:

Filed or Issued:

For: **VEHICLE FIRE EXTINGUISHER SYSTEM**

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) and 1.27(b) - INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled as above and described in:

☒ the specification filed herewith.

☐ application serial number _____, filed _____.

☐ patent no. _____, issued _____.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

☒ no such person, concern, or organization

☐ persons, concerns or organizations listed below*

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

FULL NAME: NOT APPLICABLE

☐ INDIVIDUAL

ADDRESS: NOT APPLICABLE

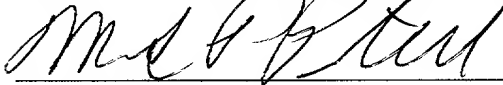
☐ SMALL BUSINESS CONCERN

☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

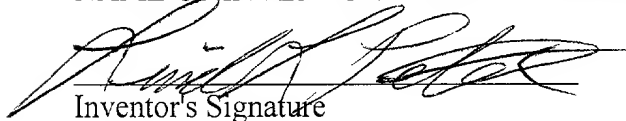
NAME OF INVENTOR: **MARK P. PITELL**



Inventor's Signature

Date: 7-17-2000

NAME OF INVENTOR: **LINDA L. PITELL**



Inventor's Signature

Date: 7-17-2000

Attorney's Docket No. K&A 99-1870
Client's Docket No. RDE213

APPLICATION

FOR UNITED STATES LETTERS PATENT

SPECIFICATION

TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN THAT WE, **MARK P. PITELL**, a citizen of
UNITED STATES OF AMERICA, and **LINDA L. PITELL**, a citizen
of UNITED STATES OF AMERICA, have invented a new and useful
VEHICLE FIRE EXTINGUISHER SYSTEM of which the
following is a specification:

VEHICLE FIRE EXTINGUISHER SYSTEM

5

BACKGROUND OF THE INVENTION

Field of the Invention

10

The present invention relates to a fire extinguisher for vehicles and more particularly pertains to a new vehicle fire extinguisher system for extinguishing a fire in event of a crash or another adverse vehicle mishap.

15

Description of the Prior Art

20

The use of a fire extinguisher for vehicles is known in the prior art. More specifically, a fire extinguisher for vehicles heretofore devised and utilized are known to consist basically of familiar, expected and obvious structural configurations, notwithstanding the myriad of designs encompassed by the crowded prior art which have been developed for the fulfillment of countless objectives and requirements.

25

Known prior art includes U.S. Patent No. 4,633,967; U.S. Patent No. 3,876,011; U.S. Patent No. 4,383,579; U.S. Patent No. 4,262,749; U.S. Patent No. 5,762,145; and U.S. Patent No. Des. 372,560.

While these devices fulfill their respective, particular objectives and requirements, the aforementioned patents do not disclose a new vehicle fire extinguisher system. The inventive device includes a central processing unit being adapted to be securely mounted in a vehicle including airplanes; and also includes a plurality of heat and impact sensors adapted to be disposed about a vehicle and being connected to the central processing unit; and further includes a fire extinguisher assembly being adapted to be securely disposed in a vehicle and being connected to the central processing unit.

In these respects, the vehicle fire extinguisher system according to the present invention substantially departs from the conventional concepts and designs of the prior art, and in so doing provides an apparatus primarily developed for the purpose of extinguishing a fire in event of a crash or another adverse vehicle mishap.

SUMMARY OF THE INVENTION

In view of the foregoing disadvantages inherent in the known types of fire extinguisher for vehicles now present in the prior art, the present invention provides a new vehicle fire extinguisher system construction wherein the same can be utilized for extinguishing a fire in event of a crash or another adverse vehicle mishap.

The general purpose of the present invention, which will be described subsequently in greater detail, is to provide a new vehicle fire extinguisher system which has many of the advantages of the fire extinguisher for vehicles mentioned heretofore and many novel

features that result in a new vehicle fire extinguisher system which is not anticipated, rendered obvious, suggested, or even implied by any of the prior art fire extinguisher for vehicles, either alone or in any combination thereof.

5

To attain this, the present invention generally comprises a central processing unit being adapted to be securely mounted in a vehicle including airplanes; and also includes a plurality of heat and impact sensors adapted to be disposed about a vehicle and being connected to the central processing unit; and further includes a fire extinguisher assembly being adapted to be securely disposed in a vehicle and being connected to the central processing unit.

There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the invention that will be described hereinafter and which will form the subject matter of the claims appended hereto.

In this respect, before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and to the arrangements of the components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting.

As such, those skilled in the art will appreciate that the conception, upon which this disclosure is based, may readily be utilized as a basis for the designing of other structures, methods and systems for carrying out the several purposes of the present invention. It is important, therefore, that the claims be regarded as including such equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

Further, the purpose of the foregoing abstract is to enable the U.S. Patent and Trademark Office and the public generally, and especially the scientists, engineers and practitioners in the art who are not familiar with patent or legal terms or phraseology, to determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application. The abstract is neither intended to define the invention of the application, which is measured by the claims, nor is it intended to be limiting as to the scope of the invention in any way.

It is therefore an object of the present invention to provide a new vehicle fire extinguisher system which has many of the advantages of the fire extinguisher for vehicles mentioned heretofore and many novel features that result in a new vehicle fire extinguisher system which is not anticipated, rendered obvious, suggested, or even implied by any of the prior art fire extinguisher for vehicles, either alone or in any combination thereof.

It is another object of the present invention to provide a new vehicle fire extinguisher system which may be easily and efficiently manufactured and marketed.

It is a further object of the present invention to provide a new vehicle fire extinguisher system which is of a durable and reliable construction.

5 An even further object of the present invention is to provide a new vehicle fire extinguisher system which is susceptible of a low cost of manufacture with regard to both materials and labor, and which accordingly is then susceptible of low prices of sale to the consuming public, thereby making such vehicle fire extinguisher
10 system economically available to the buying public.

Still yet another object of the present invention is to provide a new vehicle fire extinguisher system which provides in the apparatuses and methods of the prior art some of the advantages
15 thereof, while simultaneously overcoming some of the disadvantages normally associated therewith.

Still another object of the present invention is to provide a new vehicle fire extinguisher system for extinguishing a fire in
20 event of a crash or another adverse vehicle mishap.

Yet another object of the present invention is to provide a new vehicle fire extinguisher system which includes a central processing unit being adapted to be securely mounted in a vehicle
25 including airplanes; and also includes a plurality of heat and impact sensors adapted to be disposed about a vehicle and being connected to the central processing unit; and further includes a fire extinguisher assembly being adapted to be securely disposed in a vehicle and being connected to the central processing unit.

30

Still yet another object of the present invention is to provide a new vehicle fire extinguisher system that effectively extinguishes a fire to prevent the vehicle from exploding.

5 Even still another object of the present invention is to provide a new vehicle fire extinguisher system that prevents fires caused by any possible mishap such as crashes and electrical fires.

10 These together with other objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the invention, its operating advantages and the specific objects attained by its uses, reference should be made to the accompanying drawings
15 and descriptive matter in which there are illustrated preferred embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

20 The invention will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

25 Figure 1 is a perspective view of a new vehicle fire extinguisher system according to the present invention and shown in an automobile.

30 Figure 2 is a top plan view of the present invention shown in an automobile.

Figure 3 is a cross-sectional view of the container of the present invention showing the mixing member, in particular.

Figure 4 is a side elevational view of the present invention shown in an airplane.

5 DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference now to the drawings, and in particular to Figures 1 through 4 thereof, a new vehicle fire extinguisher system embodying the principles and concepts of the present invention and
10 generally designated by the reference numeral 10 will be described.

As best illustrated in Figures 1 through 4, the vehicle fire extinguisher system 10 generally comprises a central processing unit 14 being adapted to be securely and conventionally mounted in
15 a vehicle 20 including airplanes. A plurality of heat and impact sensors 11,12 are adapted to be disposed about a vehicle 20 and are conventionally connected with wires 15 to the central processing unit 14 with the plurality of heat and impact sensors 11,12 including side heat and impact sensors 11 which are adapted to be
20 disposed in side panels 21 of a body of the vehicle 20, and also including rear heat and impact sensors 12 which are adapted to be disposed about a gas tank 23 of the vehicle 20.

A fire extinguisher assembly is adapted to be securely and conventionally disposed in a vehicle 20 and is connected to the
25 central processing unit 14 with wires 15. The fire extinguisher assembly includes a plurality of conduits 13 including tubular members having openings therein and being adapted to be disposed about the vehicle 20 at locations of the heat and impact sensors 11,12, and also includes a container 16 being adapted to be securely
30 and conventionally disposed in the vehicle 20, and further includes fire extinguishing material 17 disposed in the container 16, and also includes a valve member 19 conventionally connected to the

container 16 for controlling dispensing of the fire extinguishing material 17 from the container 16, and further includes a pump 18 which includes a motor 25 and which is conventionally connected to the valve member 19 and to the conduits 13 for moving the fire
5 extinguishing material 17 from the container 16 through the openings in the conduits 13, and also includes a mixing member 24 movably and conventionally disposed in the container 16 and being conventionally connected to the pump 18 for mixing the fire extinguishing material 17 contained in the container 16. The
10 central processing unit 14 is adapted to receive signals from the heat and impact sensors 11,12 and to open the valve member 19 to the container 16 and to energize the pump 18 for dispensing the fire extinguishing material 17 to the conduits 13 of where the heat and impact sensors 11,12 were activated by heat or by impact. The fire
15 extinguishing material 17 is stored in the container 16 under high pressure.

In use, the heat and impact sensors 11,12 are activated by any number of vehicle mishaps including crashes and electrical fires and send a signal to the central processing unit 14 which opens the
20 valve member 19 and energizes the pump 18 to dispense the conventional fire extinguishing material 17 from the container 16 to the conduits 13 and through the opening therein to the affected areas of where the heat and impact sensors 11,12 were set off to extinguish fires before the vehicle 20 blows up.

25 As to a further discussion of the manner of usage and operation of the present invention, the same should be apparent from the above description. Accordingly, no further discussion relating to the manner of usage and operation will be provided.

30

With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed
5 readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

10 Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable
15 modifications and equivalents may be resorted to, falling within the scope of the invention.

CLAIMS

We claim:

1. A vehicle fire extinguisher system comprising:
a central processing unit being adapted to be securely mounted within a vehicle including airplanes;
a plurality of heat and impact sensors adapted to be disposed about a vehicle and being connected to said central processing unit;
and
a fire extinguisher assembly being adapted to be securely disposed in a vehicle and being connected to said central processing unit.
2. A vehicle fire extinguisher system as described in claim 1, wherein said plurality of heat and impact sensors include side heat and impact sensors which are adapted to be disposed in side panels of a body of the vehicle, and also include rear heat and impact sensors which are adapted to be disposed about a gas tank of the vehicle.
3. A vehicle fire extinguisher system as described in claim 2, wherein said fire extinguisher assembly includes a plurality of conduits having openings therein and being adapted to be disposed about the vehicle at locations of said heat and impact sensors, and also includes a container being adapted to be securely disposed in the vehicle, and further includes fire extinguishing material disposed in said container, and also includes a valve member connected to said container for controlling dispensing of said fire extinguishing material from said container, and further includes a

pump connected to said valve member and to said conduits for moving said fire extinguishing material from said container through said openings in said conduits, and also includes a mixing member movably disposed in said container and being connected to said pump for mixing said fire extinguishing material contained in said container.

4. A vehicle fire extinguisher system as described in claim 3, wherein said central processing unit is adapted to receive signals from said heat and impact sensors and to open said valve member to said container and to energize said pump for dispensing said fire extinguishing material to said conduits of where said heat and impact sensors were activated by heat or by impact.

5. A vehicle fire extinguisher system as described in claim 4, wherein said fire extinguishing material are stored in said container under high pressure.

6. A vehicle fire extinguisher system comprising:
a central processing unit being adapted to be securely mounted in a vehicle including airplanes;

a plurality of heat and impact sensors adapted to be disposed about a vehicle and being connected to said central processing unit, said plurality of heat and impact sensors including side heat and impact sensors which are adapted to be disposed in side panels of a body of the vehicle, and also including rear heat and impact sensors which are adapted to be disposed about a gas tank of the vehicle;
and

a fire extinguisher assembly being adapted to be securely disposed in a vehicle and being connected to said central processing

unit, said fire extinguisher assembly including a plurality of conduits having openings therein and being adapted to be disposed about the vehicle at locations of said heat and impact sensors, and also including a container being adapted to be securely disposed in the vehicle, and further including fire extinguishing material disposed in said container, and also including a valve member connected to said container for controlling dispensing of said fire extinguishing material from said container, and further including a pump connected to said valve member and to said conduits for moving said fire extinguishing material from said container through said openings in said conduits, and also including a mixing member movably disposed in said container and being connected to said pump for mixing said fire extinguishing material contained in said container, said central processing unit being adapted to receive signals from said heat and impact sensors and to open said valve member to said container and to energize said pump for dispensing said fire extinguishing material to said conduits of where said heat and impact sensors were activated by heat or by impact, said fire extinguishing substance being stored in said container under high pressure.

ABSTRACT OF THE DISCLOSURE

5 A vehicle fire extinguisher system for extinguishing a fire in
event of a crash or another adverse vehicle mishap. The vehicle
fire extinguisher system includes a central processing unit being
adapted to be securely mounted in a vehicle including airplanes;
and also includes a plurality of heat and impact sensors adapted to
10 be disposed about a vehicle and being connected to the central
processing unit; and further includes a fire extinguisher assembly
being adapted to be securely disposed in a vehicle and being
connected to the central processing unit.

15

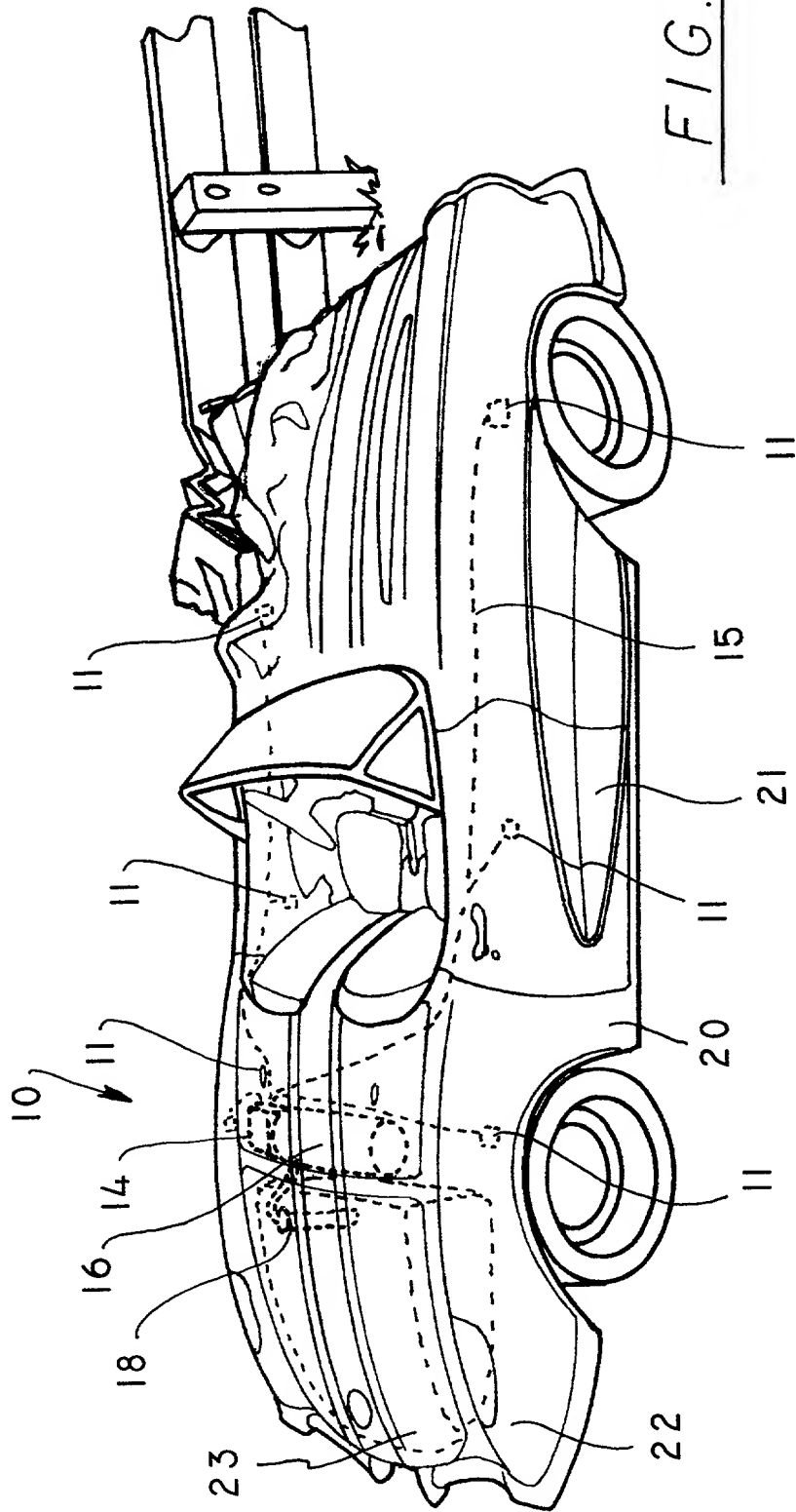
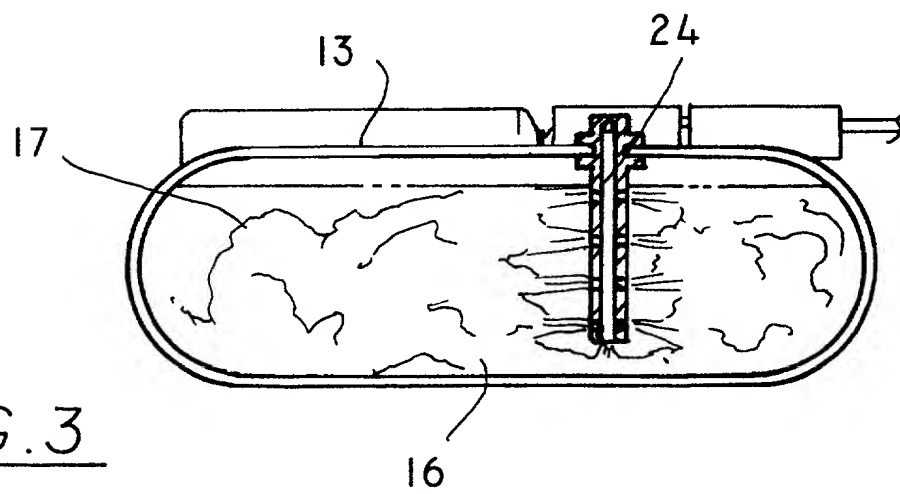
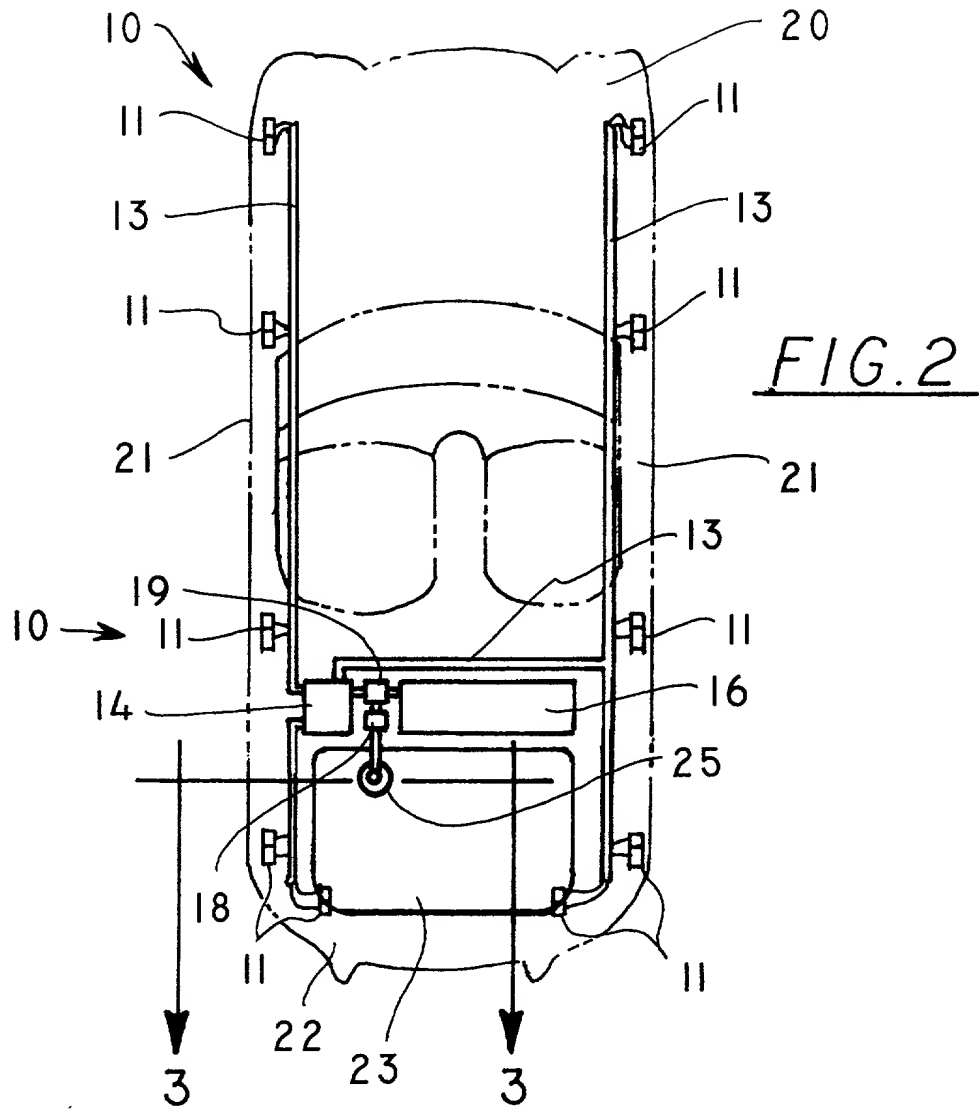


FIG. 1



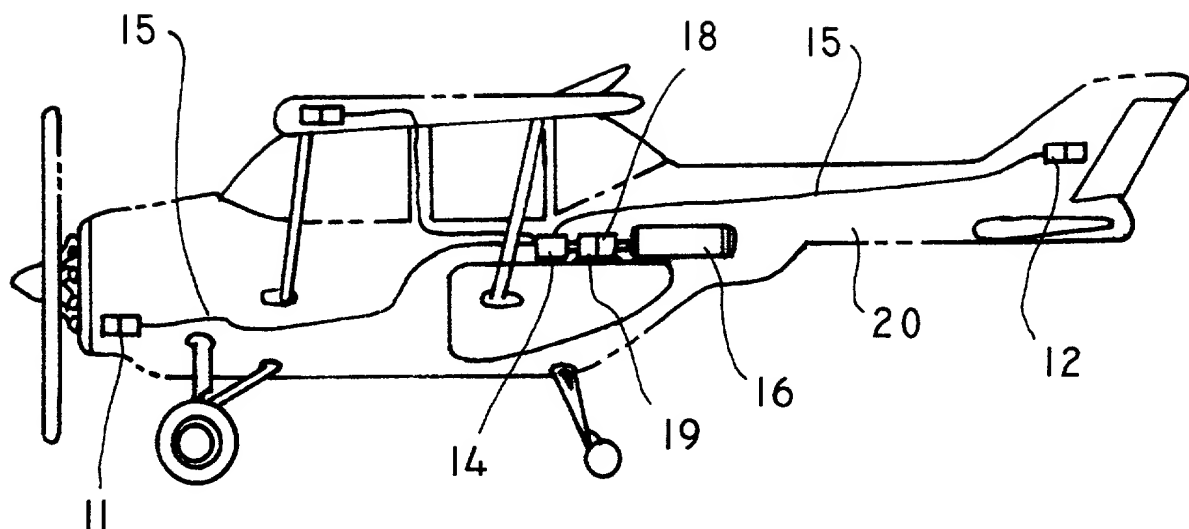


FIG. 4

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

VEHICLE FIRE EXTINGUISHER SYSTEM

the specification of which is attached hereto.

I further state that I do not know and do not believe that the above-named invention has ever been known or used in the United States before my invention thereof, or patented or described in any printed publication in any country before my invention thereof, or in public use or on sale in the United States more than one year prior to this application; that the invention has not been patented or made the subject of any inventor's certificate in any country foreign to the United States on any application filed by me or my legal representatives or assigns more than one (1) year prior to this application; and that no application for patent or inventor's certificate on the invention has been filed by me or my representatives or assigns in any country foreign to the United States, except as identified below.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment if applicable.

I acknowledge the duty to disclose information to the Patent and Trademark Office all information known to me to be material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed

<u>NONE</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
(Number)	(Country)	(Day/Month/ Year Filed)	(Yes)	(No)

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States Provisional application(s) listed below:

<u>NONE</u>	<u> </u>
(Application No.)	(Filing Date)

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s), or Section 365 (c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, Section 112. I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

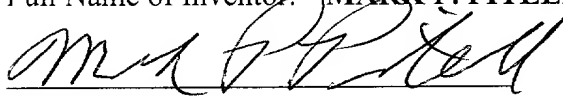
<u>NONE</u>	<u> </u>	<u> </u>
(Application No.)	(Filing Date)	(Status - patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorneys to prosecute this application and transact all business in the U.S. Patent and Trademark Office connected therewith: Ivar M. Kaardal, Registration Number 29,812.

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Full Name of Inventor: **MARK P. PITELL**



Date: 7-17-2000

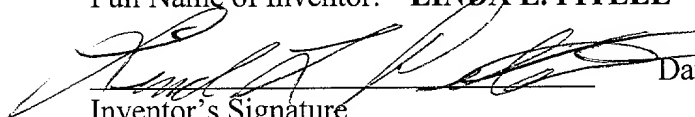
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Full Name of Inventor: **LINDA L. PITELL**



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